

# FOLIO

University of Alberta

27 April 1989



**Blooming futures:** Robert Abbott (Grounds Division) waters a host of geraniums which will be planted around campus next month.

## Keep eyes peeled for advent of suggestion box with University-wide dimensions

The President's Committee on the University's Suggestion System should soon be asking people on campus for their ideas as to how the University can be improved.

"We're putting together a proposed policy statement for President Horowitz's consideration," says David Bruch, Chair of the committee.

He anticipates that the committee's main duties will be to review all suggestions and reward the best ones. There will likely be two categories of awards:

uggestions that when acted upon  
it in intangible benefits to the  
University, and suggestions that  
have a definite quantifiable  
financial benefit to the University.

The details of making cash awards remain to be worked out, as does a system whereby the deep thinkers are recognized. In the second category, though, Mr Bruch says a suggester could receive x percent of the net gain that occurs during the first year of the benefit(s).

As mentioned, the committee is very close to having the approved policy in place. People who have questions regarding the structuring of the policy are asked to forward them to Mr Bruch, who is Director of Housing and Food Services.

This kind of suggestion program is quite common, he told *Folio*. For example, the City of Calgary has received more than 300 suggestions

this year and has granted awards in the \$20,000 range.

Air Canada has had a suggestion system for 40 years. "There are literally hundreds of these programs in North America," Mr Bruch says.

Other members of the committee are Lorne Leitch (Business Faculty), representing the Office of the Vice-President (Academic); Ian Campbell (Geography), representing the AAS:UA; Anita Moore (Boreal Institute for Northern Studies), representing NASA; and Roger Dugas (Personnel Services and Staff Relations), who acts as resource person. □

## Conference looks at language rights

The Centre for Constitutional Studies' second annual national conference will focus on "Language and the State: the Law and Politics of Identity". Scheduled for 27 to 29 April at the Hilton International, the conference has attracted scholars, civil servants, lawyers and members of Canada's general public. Language rights will be examined from a number of perspectives: anthropology, education, history, law, philosophy, political science and public administration.

Participants will consider such issues as: whether communities as well as individuals can have rights; the historical development of language policy in Canada; recent constitutional developments involving language rights; the relationship between language and culture; and the impact of the Meech Lake Accord on language rights in Canada.

The final two workshops dealing with the Meech Lake Accord and future issues involving language rights are open to the public. The workshops will begin at 1:30 pm on Saturday, 29 April, in the Rutherford suite of the Hilton.

The Centre for Constitutional Studies was established in 1987 as a collaborative effort between the Departments of History and Political Science and the Faculty of Law. It was founded to encourage and facilitate interdisciplinary study of constitutional matters. The Centre's first conference was held a year ago and dealt with the issue of Senate reform. □

## INSIDE

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## Caltech's Ahmed Zewail to give HE Gunning Lectures

Ahmed Zewail, Professor of Chemical Physics at the California Institute of Technology, will deliver the Harry Emmett Gunning Lectures on 2, 3 and 4 May.

Dr Zewail's topics are "Femtochemistry" (2 May), "Ultrafast Chemical Dynamics of Reactions" (3 May), and "Coherence and Energy Redistribution in Molecules" (4 May). Each lecture will start at 11 am in E1-60 Chemistry Centre.

A graduate of Alexandria University and of the University of Pennsylvania, Dr Zewail joined the faculty of Caltech in 1976. He is the author and co-author of more than 200 scientific papers, and the editor of four books on laser chemistry and spectroscopy. Among the awards and honors he has received

are: professorship at Ecole Normale Supérieure (France); the Alexander von Humboldt Award for Senior United States Scientists (West Germany); and, in 1989, the King Faisal International Prize in Science.

Dr Zewail's current research interests are focused on: lasers; laser chemistry and spectroscopy; new techniques in coherent laser spectroscopy; and the ultrafast dynamics of chemical reactions.

The Harry Emmett Gunning Lectures recognize the contributions of Professor Gunning to the Department of Chemistry from 1957 to the present time. Professor Gunning is currently Emeritus Professor of Chemistry at this University. □

## Networks of Centres of Excellence

### University hosts site visits for two proposed networks

Proposals are still under consideration for the Networks of Centres of Excellence that are scheduled to unfold over the next four years. The program's international peer review committee currently is conducting on-site visits for closer examination of the strongest submissions to the \$240 million program.

The University of Alberta hosted site visits in March for two proposed networks that would be administratively based here if they are funded, and a third visit is scheduled for 11 May. The U of A would be a node in 10 other proposed networks that have drawn site visits, so 26 U of A researchers have gone to other institutions to participate in their site visits.

One visit to the University of Alberta concerned the \$10 million "Microsensors" proposal headed by Jed Harrison (Chemistry). Involving chemists, physicists, and electrical and mechanical engineers, the proposed work would develop common technologies in the widely interdisciplinary field of microsensors. Other researchers involved are Drs Allegretto (Mathematics), Brett, Filanovsky, and Ristic (Electrical Engineering), Rajotte (Surgical Medical Institute), Stein (Physiology), and researchers from the Alberta Microelectronic Centre.

The second visit concerned "Brassica Juncea: Canada's Future Oilseed Crop," headed by Mary Spencer (Plant Science). This network is requesting \$16 million to develop a commercial oil crop superior to the current canola plant. The new plant would yield

better oil and meal, would grow in more areas, and would have improved resistance to drought, disease, pests, and pesticides. Also involved from this University are Drs Johnson-Flanagan, Stringam, and Szalay, all of Plant Science.

The third site visit will focus on "Molecular Recognition of Cell Surface Carbohydrates," which concerns the development of drugs for the treatment of human diseases where carbohydrates are implicated. These include cancer, viral and bacterial infections, and transplantations. This \$10 million proposal is directed by Ray Lemieux (Chemistry). Other local participants are Ole Hindsgaul (Chemistry) and staff from Chembiomed.

Drs Harrison and Spencer both told *Folio* that their review committees' questions reflected the publicized selection criteria. Excellence of the proposed science was primary, followed by industrial concerns and the logistical challenges of collaborating in such extensive networks.

With site visits being scheduled for May, the peer review committee obviously will not forward its final recommendations by the end of April, as had been planned. No revised target date has been issued.

While a site visit generally is taken as evidence of a proposal's strength, no list of finalists has been released. Asked for a comment on how the University might fare in the final decisions, Vice-President (Research) Bob James said, "We're just waiting and in anticipation." □

## FOLIO

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### Deadlines:

**Notice of coming events:** 9 a.m. three weeks in advance of desired publication date.

**Classified advertisements:** 3 p.m. one week in advance of desired publication date. This date also serves as the deadline for cancellation of advertisements. Advertisements cost 30 cents per word with no discount for subsequent insertions. There is a maximum limit of 30 words and a minimum charge of \$1.50. Contributors' corrections will be assessed at \$1.50 for each line in which an insertion is made. Advertisements cannot be accepted over the telephone. All advertisements must be paid for in full at the time of their submission.

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### President appoints committee to review pay equity process

President Myer Horowitz has appointed a committee to review the pay equity process.

Doris Badir is chairing the committee, the mandate for which is to a) review the system and the process which was undertaken to

introduce pay equity and b) advise the President and senior administration on the most effective way to deal with the current crisis but maintain the integrity of pay equity and ensure its survival. □

## Special Collections exhibition explores relationships between form and content

*thought prints* includes a pastel poem in the shape of a necktie, a book whose pages take the shape of a cheese wedge, and many other illustrations of how form is related to content in printed text.

On display now through 14 June at the Bruce Peel Special Collections Library (in the basement of Rutherford South), *thought prints* is the work of 14 students in two design courses taught by Peter Bartl and Bonnie Sadler Takach (both of Art and Design).

Few of us stop to realize that even simple forms such as quotation marks are important in conveying meaning, and we may be unaware of very innovative ways form can be used to help create text. The exhibition offers a look at such innovations, along with a new view of more familiar kinds of text.

Five different relationships between form and content are explored in this work. At one extreme is hyperform, in which form overrides content to create meaning that must be seen or sounded (for example, visual puns). At the other extreme is hypercontent, in which form is irrelevant (for example, a pages-long sentence in Joyce's



Judith Armstrong (left), Mare Maxwell and Raymond Ng at work on *thought prints*.

*Ulysses*). In between, form may dominate content, content may dominate form, or the two may be equally important.

Planning and installing a three-dimensional exhibition was an ambitious undertaking for students who are accustomed to dealing with space design on a single page. The students also were in charge of developing and writing the content for each of the exhibition's five sections, as well as designing the form.

Special Collections Librarian John

Charles observes that "the whole project is a very intellectual and theoretical coming to terms with what's on the page," and he is very pleased with the students' success.

Mr Charles also appreciates having new perspectives brought to the task of designing an exhibition for the Special Collections Library, and would be happy to collaborate again. He says, "We're definitely interested in doing something else of this sort. I love having our library be a kind of lab." □

## Faculty development activities at Grant MacEwan Community College

An invitation has been extended from Grant MacEwan Community College (GMCC) to University of Alberta faculty members to participate in Intercession 1989.

The following presentations and workshops are offered:

- Learning Styles and Classroom Delivery Systems (8 May)
- Innovations in Multicultural Programming (10 May)
- Computer Lab - Introduction to the Macintosh (11 May)
- Computer Lab - Mac Applications (12 May)
- The Creative Conspiracy (16 May)
- Using the Overhead in the Classroom (17 May)
- Well Teacher Clinic (24 May)
- Gaining Access to Personal Creative Power (25 May)
- Managing Conflict (1 June)
- International Education - Past and Future at GMCC (2 June)
- A Visionary Approach to Planning (5 to 7 June)
- CoRT Thinking (8 June)
- An introduction to Hypercard (9 June).

A number of gratis registrations are available.

For further information and registrations, telephone Kathy Stuart, Grant MacEwan Community College, at 441-4872, at least one week prior to the date of the desired session. This preregistration is essential for food services and because the size of some sessions is limited. The Office of CITL can also assist with information about the sessions. □

## James Dykes heads Planning and Development

The Vice-President (Administration) is pleased to announce the appointment of James A Dykes (BArch) as Director of Planning and Development, effective 1 May 1989. Mr Dykes comes to the University from Calgary where he has been in private architectural practice for the

past eight years. After graduating from the University of Manitoba, Mr Dykes held positions as design architect in a number of private practices in Toronto before moving to Calgary.

Planning and Development is one of 15 units under the jurisdiction of the Office of the

Vice-President (Administration). Together with Physical Plant and Technical Services, Planning and Development is responsible for facilities plans and long-range plans for the orderly development of the University. □

## University benefits from federal government's largesse

The federal government will subsidize 135 SEED (Summer Employment/Experience Development) positions for University of Alberta faculties and departments. This means almost \$350,000 for student summer employment.

SEED is a federal employment program that provides students with career or practical work experience during the summer months. The program pays \$4.50 an hour toward student wages from 1 May to 8 September.

SEED employees must be

students who: intend to return to school full-time in the fall; are legally entitled to work in Canada; are referred by a Canada Employment Centre; are not members of the employer's immediate family and have only one full-time summer job. □

## Advertising rates going up

*Folio's* advertising rates will increase by 15 percent on 1 May 1989.

Classified ads will cost 35 cents per word; display ads space will cost \$40 (1 unit), \$80 (two units), \$100 (1/4 page), \$200 (1/2 page), and \$400 (full page).

The discount rate for University of Alberta-affiliated departments and offices is 25 percent. □



## LETTERS

### Steel sculptures speak volumes

■ John-Paul Himka (*Letters, Folio*, 13 April 1989) obviously subscribes to the naive bourgeois notion that art should be "pretty". Modern abstract art makes statements. The pieces of steel sculpture located between Fine Arts and parking lot Z that Himka disdainfully refers to as "rusty clumps of metal" are clearly intended to reflect a rotten situation. Anyone with a modicum of artistic sense can see that these masterpieces are a metaphor for the slow death being inflicted on this University by inadequate library funding. Collectively they might be called "The Serials Cancellation Project". Junk indeed! Himka should take an art appreciation course, or at least read some current modern art journals. They are available through Inter-Library Loan.

Alan Rutkowski  
Cameron Library

### 'Bollixed' cause of mild astonishment

■ On perusing the last issue of *Folio*, a journal presumably intended for family reading, I was mildly astonished to note that Professor Orrell's work had been "bollixed" by a computer failure. I had not heard this term since my army days. On resorting to the *Oxford English Dictionary* I discovered that it was, indeed, a transitive verb though considered to be of vulgar usage. This is not surprising since it is derived from the old Anglo-Saxon word "ballocks", also considered impolite and which defines the male genitalia.

I fell to musing on how times have changed from the days when I began my university teaching career when professors and even students wore ties and when vulgar language was unknown in the halls of learning, save for engineering survey school. Alas, these words have become so hackneyed now as to be used in daily conversation by fresh-faced young girls and to have lost any of the impact value they once may have been supposed to have. One cannot but feel that the English language has thereby become impoverished.

Lloyd G Stephens-Newsham  
Emeritus Professor

### Janssen, Jobson claim Labatt's Awards

The first pair of Labatt's Awards for Distinguished Teaching were presented recently to Chris Janssen and Dave Jobson, both of the Department of Finance and Management Science.

The purpose of the awards is to recognize excellence in teaching and to encourage the pursuit of such excellence. Candidates were evaluated on such criteria as consistently superior command of the subject matter as reflected in class material; enthusiasm for the subject; attention to students' intellectual development, both in

and outside the classroom; development of new course material; willingness to assist colleagues in improving their teaching methods.

Bob Binnendyk, Vice-President of Labatt's Prairie Region, made the presentation to Dr Janssen on 18 March; Shawn Dunn, Controller for Labatt's Prairie Region, presented Dr Jobson with his award on 1 April.

Both teachers received a \$5,000 cheque and a small gift commemorating the occasion. □

## Throwing good money after bad? McCalla Professor's study could— save wear and tear on arm

"The most crucial element of an investment decision is how to consider the fact that the results are uncertain," asserts Giovanni Barone-Adesi (Finance and Management Science).

During his McCalla Professorship, Dr Barone-Adesi plans to study how people assess uncertainty in taking their investment decisions. He will be focussing on the valuation of options (rights to buy or sell goods or securities in the future). "The value of these rights depends on how profitable they will be, so it is crucial to model uncertainty to value them," he says.

His work will be the reverse of what has been done before.

"Option literature has dealt with the modelling of uncertainty to estimate the value of options," he explains. "I want to see what insights option markets can provide about investors' changing perception of uncertainty."

He continues: "I want to see how investors react to new information and what implications that has for their economic decisions." In particular, he'll be studying what option prices suggest about investors' adjustment to the stock market crash of 1987. "It was a dramatic change," Dr Barone-Adesi notes. "I hope I can use it to identify how perceptions about future uncertainty are formed in the marketplace."

This study may improve our understanding of both option valuation and corporate finance, he suggests. For example, it is possible to infer market participants' expectations about the income of proposed changes in

corporate structure from options prices, he adds.

For the past two years, Dr Barone-Adesi has used a SSHRC grant to develop the tools he needs to make his study possible: a new class of models with which to analyze the data. He'll be looking at stock market index options and, as an extension of the same methodology, at cash tender offers to test the validity of his models. Using option models available before, a single example might take half an hour on the University's computer. Now he'll be able to run several thousand stock market index options and cash tender offers through much faster on his PC, he estimates.

By the end of the year, he hopes to determine which alternative valuation models work better empirically and to have empirical evidence about the adjustment of people's perception of risk to new information. He plans to produce papers on these issues. "We don't write books in this field," he smiles, "it is evolving fairly fast."

Professionals such as brokers and dealers have shown interest in his work and Dr Barone-Adesi hopes, in this second phase, to show that these techniques are useful for a wider audience, "anybody involved in corporate decision-making."

Dr Barone-Adesi has taught investment, options and futures courses at the undergraduate, master's and doctoral levels in Finance in the Faculty of Business since 1981. He received his graduate degrees in Business from the University of Chicago and his Laurea in Electrical Engineering from the University of Padua. □

### Rutherford Award recipients selected

1989 Rutherford Awards for Excellence in Undergraduate Teaching will be bestowed on Franco Pasutto (Pharmacy and Pharmaceutical Sciences), Josef Takats (Chemistry), Terry Davis (Nursing), and William Taylor (Pediatrics).

The four, who were selected by General Faculties Council's Undergraduate Teaching Awards Committee, will be honored at a reception at the Faculty Club on the afternoon of 15 May.

Profiles of the recipients will be published in *Folio* next week. □



## McCalla Professor specializes in study, manipulation of thin film properties

"All the microelectronic chips that you have on your calculators and now in your cars are made ultimately from various layers of coatings that have been patterned," explains Michael Brett (Electrical Engineering), a McCalla Professor for 1989-90. Those coatings are called thin films, and Dr Brett's specialty is the study and manipulation of thin film properties.

During his McCalla year, Dr Brett will continue his theoretical and experimental work in thin film structures. His group's computer modeling is the first to offer density predictions for the films being developed in microelectronics—a feature that is important as the field moves towards putting more and more power on single chips. He also will be developing a computer module to update a simulation package used worldwide in microchip design and testing.

Additional research stems from the fact that the patterns used in the production of thin films also appear in the growth processes found in natural substances such as ice and rime. Dr Brett is working with Ed Lozowski (Geography), applying to hailstones the same growth algorithms developed for thin films. Dr Brett plans also to apply the same algorithms to the growth in interstellar grains, i.e., particles of dust that hurtle through space picking up frozen molecules as they go.

The other aspect of Dr Brett's McCalla work will be in collaboration with Fred Vaneldik and Dave Routledge (Electrical Engineering) and Tom Legg of the National Research Council in Ottawa. The four will be developing a receiver for a radio astronomy telescope, which they hope will be selected for installation at the James Clerk Maxwell Telescope in Hawaii.

Designed to work at very high frequencies, the receiver is expected to be the most sensitive of its kind.

Funding for this work comes from NSERC, the Science and Engineering Research Council of the UK, and the Alberta Microelectronic Centre.

Dr Brett earned his PhD in thin film physics at UBC in 1985, then came to the University of Alberta for a one-year postdoctoral fellowship. In 1986 he became a University Research Fellow, which is an NSERC-funded assistant professorship, and in July 1988 he was tenured and promoted to Associate Professor.

Aware that he has been at this University a relatively short time in comparison to most McCalla Professors, Dr Brett says, "I am grateful to be awarded a McCalla at such an early stage in my career." □

## For your passport picture, holiday photos, see Photo Services

If your plans for summer include travel abroad, now is the time to renew your passport.

A quick and easy way of getting that necessary picture taken is through the *Wednesday 24-hour Passport Photograph Service* introduced this week by Photo Services.

Any time on Wednesdays from now on you can drop by Photo Services' studio (it's in the Temporary Lab building between Mechanical Engineering and Windsor Car Park) and smile for the camera—no appointment necessary. Your stamped and dated black-and-white passport prints will be ready for pick up on Thursday afternoon. And all for a cost of \$10.

Photo Services also stocks all popular Kodak color print and slide films, so you can pick up a few rolls of fresh film before you begin your trip.

It's also a good idea to replace the battery in your camera if it's over a year old. Most electronic cameras rely entirely on the battery for exposure, so either change it now, or buy a spare and take it with you.

A question travellers often ask is, "Will the film in my camera and luggage be damaged by x-rays from security checks?"

The answer is yes. And with higher speed (ASA) films, positively yes.

The solution is to ask for hand examination of your camera and any luggage containing film.

X-rays are cumulative on film. One pass through a properly regulated machine is not likely to harm film. But x-rays in quantity can fog film—and there is a danger that the film may receive a massive dose from a poorly adjusted machine. Lead foil bags (available in photo supply stores) give some protection. But whenever possible, get to the airport early and have the film inspected by a security person rather than a machine.

Another tip: if you use a flash or motor drive that has to be recharged, find out if the country you are visiting has compatible power. You may need to get a

*Continued on page seven*

## Electrical Engineering's gain



On 13 April, Peter Meekison, Vice-President (Academic) (left), and JM Irving, Vice-President Sales, Hewlett-Packard, officially unveiled the minicomputers.

Education and research activities in the Department of Electrical Engineering have been enhanced by the addition of two new minicomputers.

The machines, members of Hewlett-Packard (Canada) Limited's Precision Architecture family, will be used by

Undergraduate students in electrical engineering for software development, debugging and cross-compiling. Students in computer engineering will use the

machines to support their software engineering course.

Researchers in the department intend to use the machines for a variety of research programs, including software development projects and simulation studies.

The two machines, valued at approximately \$297,000 (Canadian), were installed in September 1988. They are connected to 78 terminals throughout the Civil Electrical Engineering Building. □

## Early May brings Medigas representatives to campus

The following statement has been supplied by MM Craige, Purchasing Manager, Materials Management Department.

As an integral part of the University's gas cylinder management system, representatives of the firm of Medigas Alberta Ltd will be on campus from 1 to 5 May. The purpose of their visit is to complete a campus-wide count of all Union Carbide (Linde) compressed gas cylinders in the University's possession.

To ensure an accurate count, team members will require access to all campus buildings. It is anticipated that the count will not involve any significant disruption of day-to-day activities on campus.

While performing the count, each supplier representative will carry identification cards issued by the University. □

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## Rural Economy student Giselle Magnussen well-placed for summer

Classes may be over, but the next few weeks promise to be hectic for Giselle Magnussen, a graduate student in the Department of Rural Economy.

"My research has been on hold for two months due to school," she sighs, knowing she faces a critical deadline on 22 June. That's the day she heads off to Ottawa for a brief orientation and then down to Barbados, St Vincent and Antigua.

Magnussen is one of 30 students and three faculty advisers chosen

from universities across Canada to participate in this summer's international development seminar in the Caribbean Leeward and Windward Islands, organized by World University Service of Canada (WUSC). Participants will conduct research in sociology, anthropology, economics, agriculture, environment, geography, education and health sciences in places which rely on agriculture and tourism for survival. The seminar program,

funded by CIDA, WUSC alumni, the private sector and participants themselves, enables them to study international development *in situ*. Magnussen will focus on "Food self-sufficiency and the part-time farmer." Assisted by government and agriculture extension officials, she'll talk with about 100 farmers and, if possible, live with a local family.

Before she leaves, Magnussen has to prepare the finals for courses she's assisting; complete the background research, literature

review and questionnaire for her project; and gather general climatic and topographical information about the islands. She's also working part-time and talking with the Students' Union, International Affairs and service clubs to help raise \$2,000 for trip costs. And her personal checklist goes on. "I have to get my shots updated and passport reviewed—all the little things."

After four or five days of seminars in Bridgetown, Magnussen will meet with farmers for about a week in St Vincent and nine days in Antigua before returning to Barbados to write up and present her report. "On these islands, the majority of farmers are part-time farmers," she explains. "My goal is to gather information about them and their economic efficiency in agriculture and see if there's a way they can increase food production to improve food security in the area . . . that's the 'big view'." She hopes to do her thesis on the area.

Born in Fairview, Magnussen grew up on a farm. She has a BSc in agriculture and is working on her MSc in agricultural economy hoping to concentrate on development. Her interest was sparked on a trip before she began university. "Greece is part of Europe, but when I got to some of the islands I wondered if time didn't just forget them," she recalls. Then she took some development courses and it all just clicked.

This is her first trip to the Caribbean. Besides concerns about the heat and humidity (temperatures in the 90 degrees F range, rain every evening) and health (she's been advised not to drink unboiled water or fresh juice, not to eat ice cream), Magnussen knows she has a lot to learn about island life. "There isn't a lot of background of individual farming. It was mostly labor these people provided. Depending on what you read, some people say they lack basic knowledge that is usually transferred word of mouth, generation to generation in agriculture. But they seem to be producing pretty well . . . I guess the only way to understand it is going to be to see it."

On her return, she'll try to promote development issues on campus. □

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## Successful Final PhD Oral Examinations

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Name	Department	Final Thesis Title	Supervisor
Veronika Elizabeth Bohac	Educational Administration	"Management and Finance Plan: A Case Study of Public Policy Making in Alberta Education"	DA MacKay
Sudhir Jude Antony D'Souza	Pharmacy and Pharmaceutical Sciences	"The Role of Carotid-Sinus-Nerve Afferents and Sympathetic Efferents in the Regulation of Bronchomotor Tone in Guinea Pigs"	DF Biggs
Paulo Gomes	Physical Education and Sport Studies	"Effects of Continuous and Intermittent Training on Body Composition and Selected Physiological Parameters"	RBJ Macnab
Lyn May Griffiths	Educational Psychology	"Personality Styles and Coping Strategies of Alcoholic Men"	EE Fox and EA Conn-Blowers
Gregory Brian King	Chemistry	"Qualitative and Quantitative Atomic Spectrochemical Measurements using a Fourier Transform Spectrometer"	G Horlick
David William Langor	Entomology	"Host Effects on the Population Genetics and Dynamics of the Mountain Pine Beetle, <i>Dendroctonus Ponderosae</i> Hopkins (Coleoptera: Scolytidae)"	JR Spence
James John Miller	Soil Science	"The Origin of Dryland Salinity Near Nobleford, Alberta"	S Pawluk
Ali Yousif Mohammed	Chemistry	"Synthesis of Carbocycles and Heterocycles by Free Radical Closure"	DLC Clive
Shou-Ching Tang	Medicine	"Molecular Cloning of the Human Lymphocyte Differentiation Antigen CD9"	ARE Shaw
Garry D Wheeler	Physical Education and Sport Studies	"The Effects of Endurance Training on Physiological, Nutritional and Endocrine Factors in Men and Women"	M Singh

## Profile: Mary Packer, Technologist, Plant Science

Mary Packer calls herself a "career technician," one of a rare breed. "I kid people that I'm a lifer, staying here till I retire," she says. But she believes her experience, in Microbiology and Biochemistry before Plant Science, is an important asset for her job.

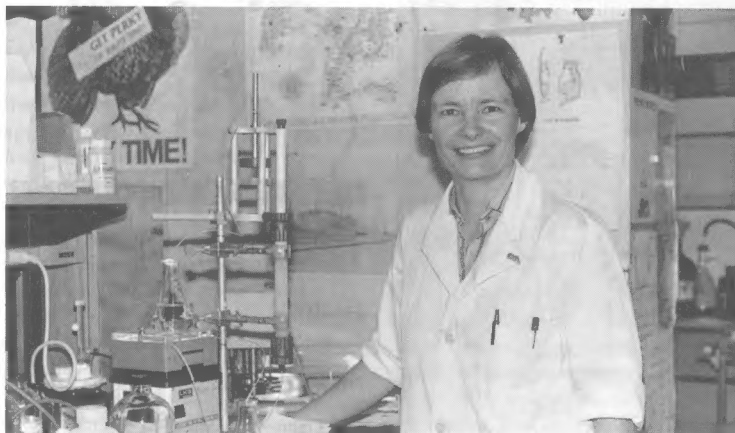
"There are just so many things you encounter every day . . . you have to make decisions . . . if you didn't know what to do, you would waste a lot of time and effort."

In both Microbiology, where she "prepped the labs," readying cultures and equipment for hundreds of students, and in the biology department at Red Deer College, where she worked as a technician ("I did everything but lecture . . . set up and ran the labs, ordered supplies, even typed . . ."), she honed her basic lab skills. And, as she's done more research, she's learned to be patient, not to get discouraged easily. "Mostly you know something's good because it hasn't worked out eight times and on the ninth time it does."

For the last eight years, she's taught student labs, and primarily conducted plant biochemistry research on pea plants for Arnost Horak, isolating and analyzing an enzyme involved in coupling electron transport to the synthesis of ATP, a molecule used in living systems for energy to run other reactions.

"This enzyme is the same in bacteria, plants, people and fungi," Packer reveals. "It's a bit surprising since there's a big difference between people and bacteria." The enzyme is found on the mitochondrial membrane in all these systems, and the researchers were quite excited last year, when they added the enzyme from pea plants to depleted mitochondrial membranes from beef hearts and reestablished enzyme activity, Packer reports. Mind you, not all her colleagues in plant science were thrilled with all the blood around from the beef hearts she chopped up for the cause.

For all her experiments, Packer grows pea plants in pans of "miculite, in the dark, so there's chlorophyll. After four days, the sprouted peas are ground up and the resulting "soup" is tossed into a centrifuge to separate out the



Mary Packer: facilitator of plant biochemistry research.

sub-mitochondrial particles (SMPs) which contain the enzyme she's after. "Under an electron microscope, it looks like a little doorknob on the inside of the membrane," Packer explains. She zaps the SMPs with a stainless steel sonic probe to cause the enzyme to flip outside the membrane. More zaps and the enzyme pops off, she says. Further hours of lab processes and the isolated enzyme is ready for use in experiments.

The enzyme is composed of six sub-units. We're now looking at the sixth sub-unit," Packer continues, "to see how it works within that molecule."

She finds this kind of pure research doesn't lend itself to cocktail conversation as easily as applied research might, so she usually steers clear of trying to explain what she does, she admits. "People want to know how this is going to translate to something they can see, feel, touch and understand." She's committed to the importance of this kind of research in science though. "We've leapfrogged ourselves. Now we can

take a gene and put it in another species, but we don't know how that gene operates," she stresses, adding, "before we try to alter basic biochemical processes, we need to know how they work normally."

For party conversation, Packer can always turn to wine (an Opimian Society member, she's taken wine appreciation courses), cats (her grey tabby, 'the Spook', has "terrorized" her life sometimes, she says) and travel (to visit an ex-grad student last year, she and husband, Art, ventured off to Thailand). She enjoys life, she says, keeps busy with photography (especially black and white), skiing, hiking, squash and staying politically aware. A quick wit and lively sense of humor temper her view of both work and play, it seems. "You mustn't take life too seriously. There's something funny in most situations, and it's important to see it," she advises, with a bright smile and a nod toward the Far Side calendar prominent on her desk. □

### Photo Services *continued from page five*

step-down transformer and an adapter plug before leaving Canada.

Film processing abroad varies greatly in quality and speed. In most industrial Western nations, the service will be much the same as you expect in Edmonton. Elsewhere the results are less predictable. To be on the safe side, bring the unprocessed film home

with you and Photo Services will be glad to process it for you.

Now, have a safe and happy summer with your camera—and remember to take that lens cap off.\*□

*\*This article was submitted by Dave Spearing, Supervisor, Photo Services, and has been slightly amended for publication.*

## CURRENTS



### Shastri Indo-Canadian Institute

The annual meeting of the Shastri Institute will take place beginning at 2 pm, 8 May, in 3-15 University Hall. The meeting will hear reports on the activities of the Institute and carry out the election of appropriate officers.

### Farewell Reception for William Blanchard

William Blanchard, Professor of Psychology, is retiring from the University of Alberta, and a reception in his honor is to be co-hosted by the Department of Psychology, the Faculty of Arts, and the Office of the Registrar.

Dr Blanchard began his career at the University of Alberta in 1961 when he was appointed Assistant Professor of Psychology. He became Associate Professor in 1968, and Professor in 1974. In 1969-70 he served as Acting Chairman of the Department of Psychology, and from 1972 to 1979 was Associate Dean of Arts for Curriculum and Student Programs. From 1980 to 1985 he served as Registrar of the University.

The farewell reception in Dr Blanchard's honor will be held in the Upper Lounge of the Faculty Club on Wednesday, 10 May, from 4 to 6 pm. All of his friends and colleagues are invited to attend.

Anyone wishing to contribute towards a gift should send a cheque, made payable to "University of Alberta", to Pamela Jarvis, Department of Psychology, P220 Biological Sciences Building, before 5 May.

### Search Committee for a Chancellor

A Search Committee for Chancellor is now being struck. This committee will include three members appointed by GFC. Nominations are now being solicited from academic staff, support staff and students. If you wish to submit a nomination, please forward a brief résumé and letter of nomination to: Mary Delane, Coordinator, GFC Nominating Committee, 2-5 University Hall, by 15 May 1989.

## Two awards for U of A Press

A book published by the U of A Press has won two of the four Alberta Book Industry Awards, presented for the first time this year by the Alberta Publishers Association.

Selected as double prizewinner by the four-member panel was *The Windmill Turning*, by Saskatchewan author Victor Carl Friesen. A collection of Mennonite nursery rhymes and maxims, with music and scholarly information as well, the book received the Alberta Book Design Award and was also declared Alberta Book of the Year.

The book's award-winning look was the work of designer Joanne Poon of the U of A Press. According to Press editor, Mary Mahoney-Robson, bringing all of the book's different elements together was no mean task. "The elements all had to be made to fit so the book appealed to the scholarly market, the book-buying public, and even children."

Cover design was also by Joanne Poon and the cover illustration was painted by Edmontonian Wendy Kershaw, who also drew the



U of A Press Director Norma Gutteridge (seated) and designer Joanne Poon display the Book of the Year and Book Design awards—soapstone carvings by Edmonton sculptor Brian Clark. The winning team includes editor Mary Mahoney-Robson, with the award-winning book, and (from left) Dianne Green, Rosario Ongcoy-Cacapit and Joyce Cass. Absent from the picture, promotion manager Rose Armstrong.

black-and-white line pictures inside. □

## 75th Anniversary Faculty of Medicine

Distinguished Scientist Award to

**Joseph B. Martin**

M.D., Ph.D., F.R.C.P.(C)

Julianne Dorn Professor of Neurology  
Harvard Medical School

*"The Impact of Molecular Genetics  
on Neurology and Psychiatry"*

3:30 p.m. Wednesday, May 10th, 1989

Bernard Snell Hall

Walter Mackenzie Health Sciences Centre

In its 75th anniversary year, the Faculty of Medicine is honoring Dr. Joseph B. Martin, one of its most distinguished graduates, for his outstanding contributions to medical science.

Refreshments will be served following the presentation

## EVENTS



### Talks

#### History

27 April, 2:30 pm Michael H Kater, York University, "The Decline of the Medical Profession in Germany From the Late Nineteenth Century to 1945." 2-09 Business Building.

#### Animal Science

28 April, 3 pm G Wu, M Liu, Z Zhang, and S Tian, "Education in China." 1-13 Agriculture-Forestry Centre.

5 May, 3 pm Ramsoondar Jagdeecce, "Immunological Aspects of Early Pregnancy." 1-13 Agriculture-Forestry Centre.

12 May, 3 pm Jacob Ole, "The Effect of Environmental Temperature on Rumen Motility." 1-13 Agriculture-Forestry Centre.

#### Comparative Literature, English, Slavic and East European Studies and Czechoslovak Society of Arts and Sciences

29 April, 3:30 pm A reading by Jan Drabek of his short story *Pensacola* and a showing of his film "Father's Return to Auschwitz." B-05 Business Building.

#### Applied Mathematics Institute

2 May, 2 pm Roland Glowinski,

professor, Department of Mathematics, University of Houston, "Numerical Aspects of Boundary Controllability of the Wave Equation." 657 CAB.

#### Health Services Administration and Community Medicine

3 May, noon Giovanni Pagano, Pascale Foundation, National Cancer Institute, Naples, "Environmental Acidification: Sub-Lethal Effects." 13-114 Clinical Sciences Building.

#### Techniques in Cell and Molecular Biology Seminar Series

3 May, noon Monica Baga, "DNA Sequencing: Manual and Automated." Presented by Anatomy and Cell Biology 6-28 Medical Sciences Building.

#### Soil Science

4 May, 12:30 pm DW Anderson, Saskatchewan Institute of Pedology, "A Gaian Perspective of Soil Science." 2-36 Earth Sciences Building.

#### Geography

5 May, 3 pm John Current, Faculty of Management Science, Ohio State University, "The Median Tour Problem." 3-36 Tory Building.

#### Chemistry

8 May, 11 am Richard FW Bader, Department of Chemistry, McMaster University, "Quantum Mechanics Predicts Atoms in Molecules." V-107 Physics Building.

9 May, 11 am Professor Bader, "A Theory of Molecular Structure and Structural Stability." V-107 Physics Building.

10 May, 11 am Professor Bader, "The Physical Basis of the Lewis Electron Pair Model." V-107 Physics Building.

Continued on page ten

## \$500 bike + \$10 lock = theft

Now that spring is upon us, bicycles abound on campus. So do thieves. Within a 10-day period in April, 12 bicycles were stolen, netting thieves \$6,150. Don't let your bicycle become a costly statistic.

Which bikes were stolen? Those protected by inexpensive cable locks (worth about \$10).

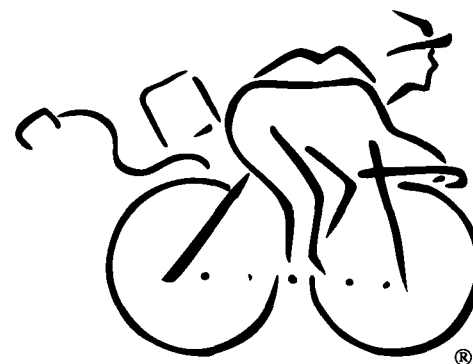
What can you do about it? First, use a good U-lock. Thieves are lazy—they would rather spend a few seconds snipping a cheap cable lock in order to ride off on a bicycle than bothering with a sturdier lock.

Second, report any person who hangs around bike racks to Campus Security (492-5252) immediately. You can have your bicycle engraved for free and receive a bike identification card from Campus Security as well. Lastly, a secure bicycle compound is available in the Education Carpark. Stalls may be rented from Parking Services for \$5 per month or \$25 per year. Call 492-3811 for more information.\* □

\*Dennis Dahlstedt, Training and Community Relations, Campus Security, wrote this article for Folio.

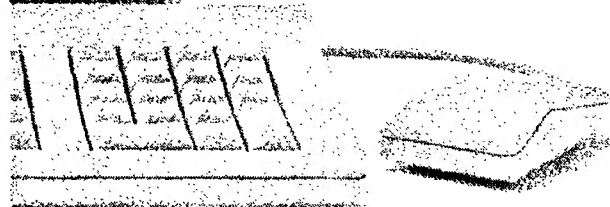
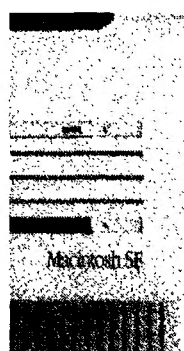


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## For more information, contact

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The Micro Demonstration Centre, 302 GenServ, 492-5442

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## Events

*Continued from page eight*

### Rehabilitation Medicine

8 May, 12:30 pm Steven Wolf, Centre for Rehabilitation Medicine, Emory University, Atlanta, Georgia, "New Approaches to Conditioning the Nervous System: Implications for Rehabilitation." 203 Corbett Hall.

### Linguistics

8 May, 4 pm John Ohala, professor of Linguistics, University of California, Berkeley, "The Integration of Physics, Psychology, and Ethology into Linguistics." 4-9 Business Building.  
9 May, 10 am Dr. Ohala, "Some Informal Remarks on Formalism in Phonology." 4-02 Assiniboia Hall.

## The Arts

### Exhibitions

#### FAB Gallery

Until 7 May "4th Annual IDEAS Exhibition" — a collection of work produced in the Industrial Design program this year.

#### Bruce Peel Special Collections

Until 14 June "thought prints" — an investigation of the form and content of language on the printed page. First collaborative exhibition by students in Visual Communications Design, Art and Design, and Special Collections. Hours: 8:30 am to 4:30 pm; Monday to Friday. 492-5998. B-7 Rutherford South.

### Music

29 April, 8 pm World Music Concert—presenting ethnic music performed by local community groups. Admission: \$5. Convocation Hall.

## Positions

*The University of Alberta is committed to the principle of equity in employment.*

*In accordance with Canadian Immigration requirements, these advertisements are directed to Canadian citizens and permanent residents.*

### Support Staff

To obtain further information on the following positions, please contact Personnel Services and Staff Relations, 2-40 Assiniboia Hall, telephone 492-5201. Due to publication lead time and the fact that positions are filled on an ongoing basis, these vacancies cannot be guaranteed beyond 21 April. For a more up-to-date listing, please consult the weekly Employment Opportunities Bulletin and/or the postings in PSSR.  
Positions available as of 21 April 1989.

**The salary rates for the following positions reflect adjustments in accordance with the terms for the implementation of the Pay Equity Program, effective 1 April 1989 for**

**those positions in the "green-circled" and "white-circled" categories.**

Clerk Steno, Grade 5, Rural Economy, (\$1,564-\$2,087)  
Secretary, Grade 5, Animal Science, (\$1,682-\$2,087)  
Administrative Clerk, Grade 6, Office of Student Awards, (\$1,741-\$2,298)  
Medical Steno, Grade 6, Pediatrics, (\$1,806-\$2,298)  
Secretary, Grade 6, Faculty of Medicine, (\$1,806-\$2,298)  
Departmental/Executive Secretary, Grade 7, Office of the Vice-President (Research), (\$1,964-\$2,516)  
Timetabling Clerk, Grade 7, Office of the Registrar, (\$2,008-\$2,516)  
Housing Worker, Grade 2, Housing and Food Services, (\$1,472-\$1,813)  
Housing Worker - Lead Hand, Grade 4, (40-hour week), Housing and Food Services, (\$1,763-\$2,172)  
Administrative Assistant, Grade 7, Dean of Arts, (\$2,008-\$2,516)  
Technician, Grade 7, Clothing and Textiles, (\$2,008-\$2,516)  
Equipment Supervisor, Grade 7, (40-hour week), Physical Education (Support Services), (\$2,295-\$2,876)  
Administrative Assistant, Grade 9, (Residence Life Coordinator), Housing and Food Services, (\$2,225-\$2,976)  
Technician, Grade 10, Geology, (\$2,527-\$3,223)  
Programmer Analyst, Grade 10, Computing Science, (\$2,527-\$3,223)

**The following positions retain salary rates in accordance with the current classification system and pay plan.**

Clerk/Clerk Typist II (Part-time/Trust), Pediatrics, (\$679-\$905) (prorated)  
Clerk Typist II, Legal Resource Centre, (\$1,276-\$1,785)  
Clerk Steno III (Part-time/Trust), Faculty of Business, (Accounting), (\$812-\$1,020), (prorated)  
Clerk Steno III (Term to 6 November 1990), Faculty of Extension, (\$1,421-\$1,785)  
Clerk Steno III (Trust), Academic Staff Association (AAS:UA), (\$1,421-\$1,785)  
Clerk Steno III (Trust), Canadian Institute of Ukrainian Studies, (\$1,421-\$1,785)  
Library Clerk III (Part-time), Library - Acquisitions, (\$812-\$1,020) (prorated)  
Secretary (Trust), Faculty of Medicine, (\$1,584-\$2,023)  
Building Service Worker II, Housing and Food Services, (\$1,421-\$1,785)  
Public Relations/Publications Assistant I (Term to 31 March 1990), Housing and Food Services, (\$1,527-\$1,939)  
Technician III (Trust), Pediatrics, (\$1,643-\$2,397)  
Public Relations/Publications Assistant II, Housing and Food Services, (\$1,785-\$2,297)  
Biochemistry Technician II/Biochemistry Technologist I (Trust), Biochemistry, (\$1,863-\$2,611)  
Programmer Analyst I, Office of Research Services, (\$2,023-\$2,611)  
Laboratory Technologist I (Term), Provincial Laboratory, (\$2,023-\$2,611)  
Technologist III (Trust), Pathology, (\$2,023-\$2,851)  
Biochemistry Technologist I/II (Trust), Biochemistry, (\$2,023-\$2,851)  
Public Relations/Publications Assistant III (Editorial Assistant), Office of Public Affairs, (\$2,200-\$2,851)  
Programmer Analyst II, Computing Science, (\$2,397-\$3,113)  
For vacant Library positions, telephone 492-3790.

## Advertisements

### Accommodations available

Sale - University/Belgravia area. Immaculate, 1,500' bungalow. Fireplace, nice location. \$135,500. Ed Lastiwka, Royal LePage Realty, 437-7480, 437-4984.  
Sale - University/Belgravia area. Nice, four-bedroom semi, hardwood, many upgraded features. \$106,500. Ed Lastiwka, Royal LePage Realty, 437-7480, 437-4984.  
Rent - Old Glenora. Wellington Crescent. Two storey, three bedroom, furnished. References, please. No smokers or pets. 1989-90 academic year. Ray McCall, 421-9900 (office), 455-4619 (home).  
Rent - Rosedale, furnished, one-bedroom apartment. June to September 1989. \$325. 428-0423.  
Rent - Strathcona. September 1989-June 1990. Three-bedroom duplex, furnished. \$560-\$600/month and utilities. 492-3543, 431-0388.  
Sale - Old Strathcona, 1,500', luxury condominium. Two bedrooms, 1 1/2 baths, jacuzzi, fireplace, garburator, two covered parking spots. Excellent condition, \$119,900. 439-8790.  
Rent - Beautiful Blue Quill condominium. Furnished, 2,000 sq ft, three bedrooms, jacuzzi. 6 May to 30 June 1989. \$1,200/month. Western Relocation, 438-1044, 435-5167.  
Sale - Prestigious, Grandview, spacious, four-level split. Half block from ravine, beautifully landscaped, bright sunny rooms, two baths. Main floor family room. Huge master. Call Sherry Mailo, Re/Max, 438-7000.  
Rent - August for one year, fully-furnished, four-bedroom, study, Aspen Gardens split-level. Near schools, sport facilities, shopping. Bus, bike path to University. Fireplace, sundeck. \$900. 492-2335 or 436-8808.  
Rent - Lansdowne, four-bedroom, furnished home. Fireplace, double garage, swimming pool, jacuzzi. September 1989-August 1990. 492-3516, 434-3116.  
Rent - Available 1 August. Historic, four-bedroom house, near campus. Fireplace, panelled dining room, large living room with wooden columns, well-treed lot. \$975/month, (renewable lease). \$800 DD. 433-2904.  
Sale - Gracious, two-storey, four-bedroom home. 2,200' plus 600' basement development. Ravine/cul-de-sac location. Park-like lot in prestigious Quesnell Heights. 486-2297.  
Sale - University area. \$85,500. Charming, very well maintained, two-bedroom home. Suite is bright, spacious. Vinyl siding. Heated double garage. Hot! Joy E Murray, NRS Realty Centre. 438-6111.  
Sale - Lakefront, \$79,900. Gardener's Cove, Wabamun. 1,166 sq ft, four-bedroom, heated cottage. Boat house. Guest house. Property 120'x250'. Great package. Joy E Murray, NRS Realty Centre, 438-6111.  
Rent - Grandview, executive house, semi-furnished if desired, plant area, hot tub. 437-6641.  
Rent - July and August. Two-bedroom, fully-furnished home. Belgravia. \$600/month. 436-5119, 492-5772.  
Sale - Parkallen. Semi-bungalow, 1,400', hardwood floors, two bathrooms, mature trees, double garage. 437-6637.

Sale - Riverbend. Near river. Executive, 3,000 sq ft home. Huge kitchen with solarium, four bedrooms with main floor den. South backyard. Ann Dawrant, Spencer Realty, 436-5250.  
Lease - Three-bedroom house, beautiful Old Glenora, 1 1/2 baths. Double attached, heated garage, large fence. lot, ravine, four appliances. \$1,250/month, DD, references required. (403) 452-6122.  
Rent - Old Strathcona. Restored, 2,200 sq ft home. Furnished, three bedrooms, nursery/study, family room, garage. No smokers/pets. July 1989-August 1990. Asking \$900/month and utilities. 492-5383, 433-0625.  
Sale - Windsor Park. 1,700', three-bedroom bungalow. One block from campus. \$153,000. No agents. 439-5237.  
Rent - Riverbend/Brookside. Four-bedroom, two-storey, family home. Furnished. Outdoor hot tub/deck. Fireplace, 2 1/2 baths. 1 September for 10 or 11 months. 435-5427.  
Sale - Lakefront. Wabamun north shore. Furnished cottage with terrific view. Very private beach. Chris Tenove, 433-5664, 436-5250. Spencer Realty.  
Sale - \$56,500. Well-built cottage. By Wabamun Sailing Club. Indoor plumbing. Sauna. Chris Tenove, 433-5664, 436-5250. Spencer Realty.  
Sale - \$39,500. University area. Two-bedroom condominium. Hardwood floors, large landscaped grounds. Chris Tenove, 433-5664, 436-5250. Spencer Realty.  
Rent - Study leave house. Mid-August-1 June. Old Glenora, furnished, three bedroom, fireplace, piano. \$1,200/month. Prefer non-smokers. 454-2391 after 5 pm.

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or UBC Creative Arts Program, Centre for Continuing Education, The University of British Columbia, 5997 Iona Drive, Vancouver, B.C. V6T 2A4 (604) 222-5254

After June 10th: Box 207, Atlin, B.C. V0W 1A0 (604) 651-7659.